Amendments to the Claims

This listing of claims will replace all prior versions, and listings, of claims in the application.

1. (*Currently Amended*) A method comprising:

applying individual voltages having respective voltage values to a plurality of pixels ~~substantially simultaneously to each of a plurality of pixels~~ in a spatial light modulator (SLM) to move at least one ~~individual~~ pixel from the plurality of pixels to a first position and a second position;

reflecting a first light beam and a second light beam from the at least one moved ~~individual~~ pixel in the first and second positions, respectively;

passing the first and second reflected light beams ~~from the at least one individual pixel~~ through an apodized pupil in an optical system;

blocking ~~using a semi-plane knife-edge to block~~, from only one side at a time, a zero order lobe of a pixel diffraction pattern associated with the at least one moved ~~individual~~ pixel at the apodized pupil;

capturing respective first and second images [[an]] ~~image of the at least one individual pixel~~ from the first and second reflected light beams after the first and second reflected light beams [[it]] passes through the apodized pupil;

~~independently resolving individual pixels among the plurality of pixels using the apodized pupil;~~

correlating the first image and the respective voltage values associated with the at least one moved pixel ~~image of the individually resolved pixels and the respective voltage values~~ to generate respective result signals, wherein the correlating comprises comparing the first image to the second image; and

calibrating the ~~individually resolved~~ plurality of pixels ~~including the at least one individual pixel~~ using the respective result signals.

2. (*Canceled*)

3. (*Previously Presented*) The method of claim 1, further comprising using a charge coupled device (CCD) array to perform the capturing step.

4. (*Canceled*)

5. (*Original*) The method of claim 3, wherein the image of each of the pixels is captured using more than one cell in the CCD array.

6. (*Currently Amended*) The method of claim 1, further comprising:

tilting the at least one moved ~~individual~~ pixel through a plurality of desired angles; and

performing the capturing step for each of the desired angles.

7. (*Currently Amended*) The method of claim 1, further comprising:

tilting the at least one moved ~~individual~~ pixel through a set of angles;

performing the capturing step at each angle in the set of angles; and

using interpolation to determine a voltage value that moves the at least one moved ~~individual~~ pixel to an angle outside the set of angles.

8. (*Canceled*)

9. (*Currently Amended*) The method of claim 1, further comprising forming the apodized pupil using at least one of an annular pattern and a semi-circular pattern.

10. (*Currently Amended*) The method of claim 1, further comprising forming the apodized pupil using at least one of a semi-plane knife edge, a shearing grating, and an algorithm derived apodization pattern, such that variations ~~are present~~ in at least one of transmittance and phase is present in the first reflected light.

11-12. (*Canceled*)

13. (*Previously Presented*) The system of claim 24, wherein the detector comprises a charge coupled device (CCD) array.

14. (*Canceled*)

15. (*Previously Presented*) The system of claim 13, wherein an image of each of the individual pixels is measured using more than one cell in the CCD array.

16-17. (*Canceled*)

18. (*Currently Amended*) The system of claim 24, further comprising at least one of a shearing grating, an algorithm derived apodization pattern, an annular pattern, and a

semi-circular pattern to apodize the pupil, such that variations ~~are present~~ in at least one of transmittance and phase is present in the first reflected light.

19. (*Currently Amended*) The system of claim 24, wherein:

the corresponding voltage moves each of the individual pixels through a plurality of desired angles; and

the correlating device determines result signals ~~a second result signal~~ for each of the desired angles.

20. (*Previously Presented*) The system of claim 19, wherein:

the detector captures an image at each angle in the plurality of desired angles; and

the correlating device uses interpolation to determine a third result signal for angles falling outside the plurality of desired angles.

21. (*Previously Presented*) The system of claim 24, wherein the optical system comprises projection optics of a lithography tool.

22. (*Previously Presented*) The method of claim 1, wherein the image of each of the plurality of pixels is captured using one cell in a CCD array.

23. (*Previously Presented*) The system of claim 13, wherein the image of each of the individual pixels is captured using one cell in a CCD array.

24. (*Currently Amended*) A system comprising:

a voltage value storage configured to ~~substantially simultaneously~~ transmit individual voltages having voltage values to corresponding individual pixels in a spatial light modulator (SLM) to move the individual pixels to a first position and a second position;

a semi-plane knife edge device configured to apodize a pupil in an optical system, wherein the semi-plane knife edge device blocks, from only one side at a time, a zero order lobe of a pixel diffraction pattern associated with each of the moved individual pixels at the apodized pupil;

a detector configured to capture a first image and a second [[an]] image corresponding to each of the moved individual pixels from a first light and a second light that has reflected off the moved individual pixels in the first and second positions, respectively, [[SLM]] and passed through the semi-plane knife edge device;

a correlating device configured to correlate the first image and the voltage values to generate respective result signals ~~a first result signal, respectively~~ for each of the moved individual pixels and to compare the first image to the second image [[,]] ~~for independently resolving each of the individual pixels substantially simultaneously~~; and

a controller configured to calibrate the individual pixels in the SLM ~~resolved individual pixels~~ using the respective result signals ~~first result signal~~.